Claims

[c1]   1. A method for optimizing the efficiency of base-to-vehicle communication, said method comprising the steps of:

beginning a call initiation step for establishing a wireless communication between a base station and a remotely located vehicle;

sensing conditions at which a prospective wireless communication would be conducted;

analyzing whether the sensed conditions meet predetermined criteria for initiation of the prospective wireless communication; and

choosing to initiate a wireless communication when the predetermined criteria for initiation of the prospective wireless communication is satisfied based on the analysis of sensed conditions.

[c2]   2. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 1, said method further comprising:

determining from the sensed conditions that the remotely located vehicle is traveling below a predetermined threshold speed.

[c3]   3. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 1, said method further comprising:

determining from the sensed conditions that the remotely located vehicle is traveling below a threshold speed indicative of highway travel.

[c4]   4. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 1, said method further comprising:

determining from the sensed conditions transmission quality for the prospective wireless communication.

[c5]   5. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 4, said method further comprising:

sending variable amounts of electronic data from the remotely located vehicle to the base station based on the determined transmission quality for the prospective wireless communication.

[c6]   6. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 4, said method further comprising:

sending abbreviate amounts of electronic data from the remotely located vehicle to the base station based on the

determined transmission quality for the prospective wireless communication being above a threshold quality.

[c7]   7. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 4, said method further comprising:
sending complete electronic data from the remotely located vehicle to the base station based on the determined transmission quality for the prospective wireless communication being below a threshold quality.

[c8]   8. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 1, said method further comprising:
determining from the sensed conditions that the remotely located vehicle is traveling at a speed indicative of urban travel.

[c9]   9. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 1, said method further comprising:
determining from the sensed conditions that the remotely located vehicle is traveling in an urban environment.

[c10]   10. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 1, said

method further comprising:

completing the prospective wireless communication when a calculated cost of the prospective wireless communication meets predetermined parameters.

[c11]   11. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 10, said method further comprising:

sending variable amounts of electronic data from the remotely located vehicle to the base station based on the calculated cost of the prospective wireless communication.

[c12]   12. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 10, said method further comprising:

sending abbreviate amounts of electronic data from the remotely located vehicle to the base station based on the calculated cost of the prospective wireless communication being above a threshold amount.

[c13]   13. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 10, said method further comprising:

sending complete electronic data from the remotely located vehicle to the base station based on the calculated cost of the prospective wireless communication being

below a threshold amount.

[c14]   14. A method for optimizing the efficiency of base-to-vehicle communication, said method comprising the steps of:

beginning an initiation step for establishing a wireless communication between a base station and a remotely located vehicle;

sensing conditions at which a prospective wireless communication would be conducted;

analyzing whether the sensed conditions meet predetermined criteria for initiation of the prospective wireless communication; and

choosing to abort initiation of the prospective wireless communication when the predetermined criteria for initiation of the prospective wireless communication fail to be satisfied based on the analysis of sensed conditions.

[c15]   15. The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 14, said method further comprising:

aborting initiation of the prospective wireless communication when a calculated cost of the prospective wireless communication exceeds a threshold.

[c16]   16.The method for optimizing the efficiency of base-to-vehicle communication as recited in claim 14, said

method further comprising:

determining from the sensed conditions that the re-
motely located vehicle is traveling above a threshold
speed indicative of highway travel.

[c17]   17. The method for optimizing the efficiency of base-
to-vehicle communication as recited in claim 14, said
method further comprising:

determining from the sensed conditions that the re-
motely located vehicle is traveling in an urban environ-
ment.

[c18]   18. A method for optimizing the efficiency of base-
to-vehicle communication, said method comprising the
steps of:

beginning a call initiation step for establishing a wireless
communication between a base station and a remotely
located vehicle;

sensing the identity of the local provider of wireless
communication services to the remotely located vehicle;

determining whether that local provider is an approved
provider; and

choosing to initiate a wireless communication when the
identified provider is approved to provide wireless com-
munications between the base station and the remotely
located vehicle.

[c19] 19. A method for optimizing the efficiency of base-to-vehicle communication, said method comprising the steps of:

beginning a call initiation step for establishing a wireless communication between a base station and a remotely located vehicle;

sensing the identity of the local provider of wireless communication services to the remotely located vehicle;

determining whether that local provider is an approved provider; and

choosing to abort initiation of a wireless communication when the identified provider is not approved to provide wireless communications between the base station and the remotely located vehicle.